Complete Summary

GUIDELINE TITLE

Nutritional management in long-term care: development of a clinical guideline.

BIBLIOGRAPHIC SOURCE(S)

Thomas DR, Ashmen W, Morley JE, Evans WJ. Nutritional management in long-term care: development of a clinical guideline. Council for Nutritional Strategies in Long-Term Care. J Gerontol A Biol Sci Med Sci 2000 Dec;55(12):M725-34. PubMed

GUIDELINE STATUS

This is the current release of the guideline.

According to the guideline developer, this guideline is still considered to be current as of 2005, based on a review of literature published since the original guideline publication.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Involuntary weight loss resulting from malnutrition

GUIDELINE CATEGORY

Diagnosis
Management

CLINICAL SPECIALTY

Geriatrics
Internal Medicine
Nursing
Nutrition

INTENDED USERS

Advanced Practice Nurses
Dietitians
Nurses
Pharmacists
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To improve the management of malnutrition in long-term care settings
- To clarify information necessary to develop a care plan and to inform the physician about the resident´s condition
- To focus on differential diagnosis

TARGET POPULATION

Long-term care residents suffering from involuntary weight loss

INTERVENTIONS AND PRACTICES CONSIDERED

1. Weekly weight monitoring program
2. Checking quality indicator conditions, including fecal impactions, infection (urinary tract infection [UTI], upper respiratory infection [URI], pneumonia, gastrointestinal [GI]), tube feeding, decline in activities of daily living (ADLs), pressure ulcer
3. Checking hydration status
4. Evaluation of biochemical parameters, such as serum albumin, cholesterol, hemoglobin, transferrin
5. Evaluation of food and environmental factors
6. Nursing Nutritional Checklist
7. Interventions including family assistance with feeding, evaluation of food preferences, identification of favorite foods, nutritional supplementation, enteral or parenteral feeding, and hospitalization
8. "Meals on Wheels" mnemonic
9. Geriatric Depression Scale
10. Discontinuation of all drugs causing or aggravating anorexia
11. Orexigenic drugs for appetite stimulation
12. Advanced directives and palliative care

MAJOR OUTCOMES CONSIDERED

- Mortality rate associated with malnutrition

- Effect of various medical conditions such as depression, pressure ulcers, cardiac disease, infections, pulmonary disease, alcoholism, and others on weight loss
- Risk associated with undernutrition

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

A comprehensive literature search was conducted through the National Library of Medicine´s Medline Database using key Medical Subject Heading (MeSH) terms, such as anorexia, weight loss, appetite, protein-energy malnutrition, nutritional status, aged, and aging.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Delphi Method)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus (Delphi)

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

An expert panel of interdisciplinary thought leaders representing academia and the medical community joined together to form the Council for Nutritional Clinical Strategies in Long-Term Care. The Council convened a summit meeting in May

1998 to review the current state of the science in nutrition management, to identify major issues surrounding prevention and treatment of malnutrition in the elderly population, and to identify evidence-based recommendations for the management of malnutrition in long-term care.

The Council reviewed existing literature to formulate protocol-driven recommendations to serve as a clinical guide for the management of malnutrition in the long-term care setting. Where evidence existed, it served as the basis for specific recommendations. In the absence of evidence, a modified Delphi approach was used to obtain consensus. The Council conducted a series of regional consensus meetings and a closed Internet discussion forum to gain input from academic thought leaders. This input refined recommendations that were published in March 1999 as a monograph from the Council for Nutritional Clinical Strategies in Long-Term Care, entitled Anorexia in the Elderly. The monograph presented the recommendations graphically in a parallel algorithmic approach. The algorithms were formally introduced at a satellite symposium during the annual meeting of the American Medical Directors Association on March 5, 1999.

Subsequent to their publication and introduction, in July 1999, representatives from the American Dietetic Association (ADA) met with the Council to discuss the algorithms in light of the introduction of the ADA´s Health Care Financing Administration-mandated risk assessment tool. Pursuant to that meeting, the algorithms were revised to include key quality indicators related to malnutrition and dehydration, minimum data set indicators, and additional food/environmental considerations. In addition, a subcommittee was formed to develop the Nursing Nutritional Checklist for use in care planning aligned with the revised algorithms. This checklist received consensus approval by the Council in October 1999 and was introduced at a satellite symposium during the annual meeting of the American Society of Consultant Pharmacists on November 10, 1999. A series of regional meetings were conducted to present the revised algorithms and nursing checklist and to address questions related to their use within long-term care.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

In order to gain support of the algorithms from a respected peer association and establish a research initiative where lack of evidence exists, the Council met with an independent peer-review committee selected by The Gerontological Society of

America in February 2000. Based on input from that meeting, the algorithms were retitled Clinical Guide to Prevent and Manage Malnutrition in Long-Term Care.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The Clinical Guide is divided into two parts, one designed for nursing staff, dietary staff, and dietitians and a second designed for physicians, pharmacists, and dietitians. The Clinical Guide for nursing staff, dietary staff, and dietitians and the Nursing Nutritional Checklist are designed to clarify information necessary to develop a care plan and to inform the physician about the resident´s condition. The Clinical Guide for physicians, pharmacists, and dietitians focuses on differential diagnosis.

The Clinical Guide for Nursing, Dietary, and Dietitian Staff

Clinical Triggers

Both clinical guidelines were originally triggered by three factors. These parameters were derived from the Omnibus Budget Reconciliation Act of 1987 (OBRA 1987) guidelines: (a) involuntary weight loss of greater than 5% in 30 days or 10% in 180 days; (b) leaving more than 25% of food in the past 7 days or two-thirds of meals based on a 2,000 kcal diet; or (c) a body mass index (BMI, calculated as weight divided by height squared) of equal to or less than 19.

Age- and gender-adjusted BMI below the 10th dectile has been used to define undernutrition (less than 19 in men and less than 19.4 in women). In hospitalized adults with serious illness, excess mortality within 6 months (risk ratio 1.23, p less than .001) has been demonstrated when the BMI is less than 20. The increase in mortality is linear—the lower the BMI, the greater the risk. Increased risk of death has been shown to begin at a BMI less than 23.5 in men and less than 22.0 in women. The Clinical Guidelines revised the BMI at 21, however, because a body mass index of less than 21 has been shown to be associated with increased mortality and may result in earlier intervention.

Advanced Directives

Whenever a resident has a weight loss problem, it is essential that they or their proxy have a full discussion of their health care wishes with a health care professional. A discussion of the treatment goals and the resident´s ongoing quality of life should be initiated at this point. The decision that they make should be documented and guide how aggressively the algorithm is utilized.

Medical Conditions

Medical conditions that may be associated with anorexia, such as decreased food intake, or increased metabolic requirements should be assessed. Increased metabolic requirements may be precipitated by fever, infection, or the presence of chronic skin wounds. Anorexia may be associated with illness, drugs, dementia, or mood disorders. Decreased food intake may result from dysphagia, chewing

problems, nausea, vomiting, diarrhea, pain, or fecal impaction. Treatment of these conditions may restore appetite and body weight.

Hydration

Fluid intake and hydration status may affect body weight. An assessment of hydration status may account for weight loss due to low fluid intake. Dehydration may be difficult to detect by clinical signs alone and require the use of biochemical parameters. The recommended amount of fluid consumed by nursing home residents is confusing. Amounts range from 1 mL/kcal, 30 mL/kg body weight, or the sum of 100 mL fluid per kg for the first 10 kg actual body weight, 50 mL fluid per kg for the next 10 kg actual body weight, and 15 mL fluid per kg for the remaining kilograms actual body weight. Direct observations of institutionalized adults indicate a total fluid intake, including fluids derived from meals, of 1,783 $\pm$ 545 mL. When compared to the standard of 1 mL/kcal and 30 mL/kg, recommended intakes were low, primarily due to low body weight or low caloric intake. The calculated value provides at least 1,500 mL daily, even for residents with low weight. A general recommendation suggests that residents should ingest 1,500 to 2,000 mL of fluid per day, though a recent study and accompanying editorial have suggested that community-dwelling adults consume about 1,000 mL per day.

Laboratory Parameters

Evaluation of available biochemical parameters associated with malnutrition should be considered at this point. Suggested biochemical parameters include serum albumin, cholesterol, hemoglobin, and serum transferrin. While these parameters may be abnormal in several conditions unassociated with malnutrition, they are useful as guides to intervention. Abnormalities in laboratory parameters should be treated.

Environmental Factors

Food and environmental conditions that may affect intake should be considered in a continuing evaluation. Unpalatability due to overly restricted diets may cause decreased intake. Consideration of food preferences, food consistency, food temperature, and snacks should be included. Provision of pleasant, well-lighted, unhurried mealtimes in a social environment may increase intake. Dependency in eating is associated with increased mortality. Residents needing feeding assistance require a restorative feeding program. Recognition of feeding problems and proper feeding techniques may improve weight loss in nursing homes. Dysphagia and swallowing disorders, with or without recurrent aspiration, require swallowing interventions, alteration of food consistency, or consideration of enteral or parenteral feeding.

Nursing Nutritional Checklist

The Nursing Nutritional Checklist (refer to Figure 2 in the original guideline document) is designed as a supplement to the Clinical Guide to focus the comprehensive nutritional evaluation and introduce suggestions for implementing a plan of care. Notification of the results of the initial assessment to the attending physician, based on the Nursing Nutritional Checklist, should occur at this point.

This checklist can be used as a communication tool to the attending physician and other members of the interdisciplinary team and may be faxed, mailed, or made available to the attending physician during nursing home visits.

Interventions

Continued interventions by the facility staff should occur. Early interventions include family involvement, with visits or assistance with feeding at mealtimes, exploration of alternate food sources, evaluation of food preferences, and identification of favorite foods. Increased nutrient intake may be achieved by use of calorie-dense foods. Exercise may increase dietary intake. Nutritional supplementation can increase dietary intake and produce weight gain. Nutritional supplementation must be given between meals in order not to substitute for calorie intake at meals.

Failure to Improve

Failure to improve nutritional status with these measures requires consideration of enteral or parenteral feeding and hospitalization for more complete evaluation. The resident´s wishes and advanced directives may lead to decision for palliative care.

The Clinical Guide for Physicians, Pharmacists, and Dietitians

The Clinical Guide for physicians, pharmacists, and dietitians focuses on differential diagnosis. Intervention at this point should include weekly weight assessments and a differential diagnostic approach. A mnemonic, MEALS ON WHEELS, is useful in considering the potential treatable causes of malnutrition. Laboratory data should be reviewed and treated as appropriate. Medical conditions reported on the Nursing Nutrition Checklist should be reviewed, including fecal impaction, infection, and decline in activities of daily living associated with feeding dependency, pressure ulcer, or tube feedings.

Depression and Mood Disorders

Delirium due to acute illness and/or pain may be a reversible cause of decreased dietary intake. Reversal of delirium may result in resumption of appetite.

Depression is a major cause of weight loss in long-term care settings, accounting for up to 36% of residents who lose weight. An evaluation for depression, using the Geriatric Depression Scale for example, should be obtained for residents with anorexia.

Drugs

Drugs have been found to be a cause of weight loss in long-term care residents. In consultation with the pharmacist, all drugs potentially aggravating anorexia should be discontinued. Drugs that stimulate appetite (orexigenic drugs) should be considered to reverse resistant anorexia. One study found that megestrol acetate increased weight in nursing home residents.

Irreversible Causes

Certain causes of malnutrition may be irreversible. Palliative care, including orexigenic drugs, enteral or parenteral feeding, consistent with the resident´s wishes, should be considered.

CLINICAL ALGORITHM(S)

Two algorithms are provided in the original guideline document:

- Clinical Guide to Prevent and Manage Malnutrition in Long-Term Care for nursing staff, dietary staff, and dietitians
- Clinical Guide to Prevent and Manage Malnutrition in Long-Term Care for physicians, pharmacists, and dietitians

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The Clinical Guide to Prevent and Manage Malnutrition in Long-Term Care is based on a best-evidence approach to the management of nutritional problems in long-term care.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Appropriate comprehensive resident evaluation
- Appropriate care plan for long-term care residents
- Appropriate differential diagnosis and management of malnutrition

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- While the Clinical Guide to Prevent and Manage Malnutrition in Long-Term Care is presented in a linear fashion, many of the considerations can be done simultaneously and the order varied dependent on the individual resident´s needs.
- The Clinical Guide is a tool to assist in compliance. It is not an endorsement of the Health Care Financing Administration (HCFA) mandated criteria.
- It should be noted that because malnutrition in long-term care is multifactorial, any treatment that is initiated should be monitored for efficacy, and nursing interventions should proceed simultaneously with medical interventions.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Clinical Algorithm
Foreign Language Translations
Patient Resources
Quick Reference Guides/Physician Guides

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

End of Life Care
Getting Better

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Thomas DR, Ashmen W, Morley JE, Evans WJ. Nutritional management in long-term care: development of a clinical guideline. Council for Nutritional Strategies in Long-Term Care. J Gerontol A Biol Sci Med Sci 2000 Dec;55(12):M725-34. PubMed

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2000 Dec (reviewed 2005)

GUIDELINE DEVELOPER(S)

Council for Nutritional Clinical Strategies in Long-Term Care - Medical Specialty Society

GUIDELINE DEVELOPER COMMENT

Representatives from the American Dietetic Association were instrumental in its development, and a special committee of the Gerontological Society of America (GSA) served as critical reviewers and provided input and modifications of the final Guidelines.

SOURCE(S) OF FUNDING

Council for Nutritional Clinical Strategies in Long-Term Care

GUIDELINE COMMITTEE

Council for Nutritional Clinical Strategies in Long-Term Care

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Primary Authors:

David R. Thomas, MD, CMD, FACP, AGSF, FGSA
Professor of Medicine
Division of Geriatric Medicine
St. Louis University Health Sciences Center
St. Louis, Missouri

Wendy Ashmen
Programs in Medicine
Newton Square, Pennsylvania

John E. Morley, MB BCh
Dammert Professor of Gerontology
Director, Division of Geriatric Medicine
St. Louis University School of Medicine
Director, GRECC St. Louis Medical Center
St. Louis, Missouri

William J. Evans PhD
Professor of Geriatrics, Physiology and Nutrition
Director, Nutrition, Metabolism and Exercise Program
Donald W. Reynolds Center on Aging
UAMS Medical Center
Little Rock, Arkansas

Council Members:

Kerry W. Cranmer, MD, CMD
Chairman, Geriatric Medical Services
Geriatric Instructor

Great Palins Family Medicine Residency Program
Immediate Past Executive Committee
American Medical Directors Association
Board of Directors
American Academy of Hospice and Palliative Medicine
Oklahoma City, Oklahoma

Marianne Smith Edge, MS, RD, LD, FADA
Owner, MSE & Associates
Past President, The American Dietetic Association
Owensboro, Kentucky

W. Gary Erwin, PharmD
President, Omnicare Senior Health Outcomes
King of Prussia, Pennsylvania

Laurie Forrester, PharmD
President
Senior Med Alliance, Inc.
Dallas, Texas

Michael L. Freedman, MD
The Diane and Arthur Belfer Professor of Geriatric Medicine
New York University Medical Center
New York, New York

Ann Gallagher, RD, LD, CD
President, F.A. Gallagher and Associates
Past President, The American Dietetic Association
Fort Wayne, Indiana

Martin J. Gorbien, MD, CMD, FACP
Associate Professor of Internal Medicine
Director, Section of Geriatric Medicine
Director, The Johnston R. Bowman Health Center
Rush-Presbyterian-St. Luke´s Medical Center
Chicago, Illinois

Morrio Green, MD, PhD
Long-term Care Coordinator, Geriatric Fellowship Programs in Medicine
University of Medicine and Dentistry of New Jersey
Hackensack, New Jersey

Clare Hendrick, RN, BSN, CRNP
VP of Education and Clinical Development
HealthEssentials, Inc.
San Clemente, California

Barbara L. Hoffmann, MD, CMD
President, Landis Consulting Corporation & MedYork
York, Pennsylvania

Kelly A. Hollenack, RPh, CGP, FASCP
Director, Health Management
Omnicare, Inc.
Dublin, Ohio

Gordon A. Ireland, PharmD
Vice President
Clinical Pharmacy Services
MedAssets
St. Louis, Missouri

Donna A. Israel, PhD, RD, LD, LPC, FADA
President
Professional Nutrition Therapists, Inc.
Richardson, Texas

Karen Lou Kennedy-Evans, RN, CS, FNP
K.L. Kennedy Inc.
Tucson, Arizona

Steven Levenson, MD, CMD
Baltimore, Maryland

Armon B. Neel, Jr., PharmD, CGP, FASCP
President
MedicationXpert, LLC
Griffin, Georgia

Dan Osterweil, MD, CMD
Professor of Clinical Medicine and Geriatrics
UCLA School of Medicine
Los Angeles, California

Carolyn D. Philpot, MSN (R), GNP, BC
Division of Geriatric Medicine
St. Louis University Health Sciences Center
St. Louis, Missouri

Mary Ellen Posthauer, RD, CD, LD
Corporate Consultant
Supreme Care West
Evansville, Indiana

Gretchen E. Robinson, MS, RD, LD, FADA
Corporate Consultant
Health Care Facilities Inc.
Lima, Ohio

Miriam B. Rodin, MD, PhD, CMD
Assistant Professor of Clinical Medicine

The University of Chicago
Chicago, Illinois

Laurence Z. Rubenstein, MD, MPH, FACP
Professor of Geriatric Medicine
UCLA School of Medicine
Director, Sepulveda VA GRECC
Los Angeles, California

Michael W. Schuster, MD
Professor of Medicine at the Weill Medical College of Cornell University
Director of Bone Marrow Transplantation and Clinical Research
New York Presbyterian Hospital
New York, New York

Laurie Shaw, RN
Director of Nursing
Riverside Health Systems
Newport News, Virginia

Lynn Williams Shipp, RPh, FASCP
President
Strategic Health Partners
Monterey, Tennessee

Debra D. Smith, RPh, FASCP
Vice-President
MedClaim, Inc.
Charlotte, North Carolina

Dennis H. Sullivan, MD
Director, GRECC
Central Arkansas Veterans Healthcare System
Executive Vice Chairman
Donald W. Reynolds Department of Geriatrics
University of Arkansas for Medical Sciences
Little Rock, Arkansas

Eric G. Tangalos, MD, CMD
Chair, Division of Community Internal Medicine
Professor of Medicine
Mayo Medical School
Rochester, Minnesota

Lisa Welford, RPh, FASCP
Vice President, Clinical Operations
Omnicare, Inc.
Livonia, Michigan

Margaret-Mary G. Wilson, MBBS, MRCP
Assistant Professor of Geriatric/Internal Medicine

Division of Geriatric Medicine
St. Louis University Health Sciences Center
St. Louis, Missouri

Shing-shing Yeh, PhD, MD
Associate Professor in Medicine
University Hospital SUNY at Stony Brook
Geriatric Division Department of Medicine
VA Medical Center at Northport
Northport, New York

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

According to the guideline developer, this guideline is still considered to be current as of 2005, based on a review of literature published since the original guideline publication.

GUIDELINE AVAILABILITY

Electronic copies: Available from The Journals of Gerontology Web site:

- HTML Format
- Portable Document Format (PDF)

Print copies: Available from David R. Thomas, Division of Geriatric Medicine, Saint Louis University School of Medicine, 1402 S. Grand Boulevard, M238, St. Louis, MO 63104 E-mail: thomasdr@slu.edu.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Clinical guide to prevent and manage malnutrition in long-term care. For nursing staff and dietary staff and dietitians (evaluate, document and treat). Newton Square (PA): Programs in Medicine; 2000.
- Clinical guide to prevent and manage malnutrition in long-term care. For physicians, pharmacists, and dietitians (evaluate, document and treat). Newton Square (PA): Programs in Medicine; 2000.

Electronic copies: Available from the Council for Nutritional Strategies in Long-Term Care Web site

The following is also available:

- New admission nutrition questionnaire. Newton Square (PA): Programs in Medicine; 2001.

Electronic copies: Available from the Council for Nutritional Strategies in Long-Term Care Web site.
Electronic copies are also available in Spanish from the Council for Nutritional Strategies in Long-Term Care Web site.

PATIENT RESOURCES

The following is available:

- Weight loss in the long-term care resident. Family fact sheet. Newton Square (PA): Programs in Medicine; 2001.

Electronic copies: Available from the Council for Nutritional Strategies in Long-Term Care Web site.
Electronic copies are also available in Spanish from the Council for Nutritional Strategies in Long-Term Care Web site.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

This NGC summary was completed by ECRI on November 16, 2004. The information was verified by the guideline developer on November 18, 2004.

COPYRIGHT STATEMENT

DISCLAIMER

NGC DISCLAIMER

The National Guideline Clearinghouse™ (NGC) does not develop, produce, approve, or endorse the guidelines represented on this site.

All guidelines summarized by NGC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public or private organizations, other government agencies, health care organizations or plans, and similar entities.

Guidelines represented on the NGC Web site are submitted by guideline developers, and are screened solely to determine that they meet the NGC Inclusion Criteria which may be found at http://www.guideline.gov/about/inclusion.aspx.

NGC, AHRQ, and its contractor ECRI make no warranties concerning the content or clinical efficacy or effectiveness of the clinical practice guidelines and related materials represented on this site. Moreover, the views and opinions of developers or authors of guidelines represented on this site do not necessarily state or reflect those of NGC, AHRQ, or its contractor ECRI, and inclusion or hosting of guidelines in NGC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding guideline content are directed to contact the guideline developer.

Date Modified: 5/22/2006